

Team 1828 VAHS BOXERBOYS

Team Handbook and Contract

2011-2012

VAIL ACADEMY
&
HIGH SCHOOL



Introduction

FIRST (For Inspiration and Recognition of Science and Technology)

FIRST Robotics Competition (FRC) is a unique sport of the mind, designed to help high-school aged people discover how interesting and rewarding the life of engineers and researchers can be. The FIRST Robotics Competition challenges teams of young people and their mentors to solve a common problem in a six-week timeframe using a standard "kit of parts" and a common set of rules. Teams build robots from the parts and enter them in competitions designed by Dean Kamen, Dr. Woodie Flowers, a committee of engineers and other professionals.

FIRST redefines winning for these students because they are rewarded for excellence in design, demonstrated team spirit, gracious professionalism, maturity, and the ability to overcome obstacles. Scoring the most points is a secondary goal. Winning means building partnerships that last.

Team 1828 uses one phrase to describe the character of its members: "We not Me!" Each team member should strive to apply this philosophy to his/her every action as a BoxerBot. The winners of FIRST competitions are teams, not individuals. Being a team means not fighting over who is right or wrong. Discussion and compromise are the foundation for a successful team. Our robots are to be **student designed and student built.**

What we do. What to and not to bring (physically and mentally). What to expect.

The VAHS BoxerBots (Team 1828) are participants in the annual competitions established by FIRST. We are a team-oriented environment, not individualists trying to establish a name for ourselves. We welcome all who want to join, but only those who "play well with others" seem to make it to build season, let alone the competition.

A common misconception about being on the robotics team is that you are involved in the robot build. Many other aspects of the team exist; business, advertising, and spirit are a few examples. We would like all members who are actually going to work on the robot to attend the Saturday learning modules, and ALL team members to attend the Wednesday familiarization sessions.

Robot Design

Part of our philosophy is that our robot is student designed and student built. Sub-teams design their components of the robot and Student Leaders work together to incorporate the designs into one robot. They must meet all rules set forth by FIRST. Mentors are there to guide and review issues, but it is ultimately the students' decision. For better or worse, this will truly be a student designed and built robot.

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Calendar

The Team Calendar is from August 1st to July 30th of the following year. We expect members to take part in events all year long. While we strive to have a regular build schedule many issues can change this schedule. Please see Team Calendar link on the Team 1828 website for an up-to-date work schedule and calendar of upcoming events. <http://www.vhsnutznboltz.org/>

Pre-season meetings are necessary because training is accomplished then. Familiarity with the parts, tools, and software used will be established in this time. Meetings for pre-season are currently scheduled as follows;

- Wednesday (Materials/process familiarization)
3:00pm – 4:30pm (to accommodate activity-bus riders)
- Saturday (Robotics learning modules)
9:00am – 12:00pm

Build season is the period of January through mid February (six weeks long). Kickoff is in early January. Following that the team will meet as follows:

- General Work Sessions: Monday through Thursday
2:40-3:30pm Homework Only
3:30-6:00pm Travel to the Build Room and get started.
~6:00pm Meal
8:30 – 9:00 Cleanup + Wrap up
- Friday
2:40-3:30pm Homework Only
3:30-6:00pm Travel to the Build Room and get started.
~6:00pm Meal
8:30 – 9:00 Cleanup + Wrap up (no cleanup on Friday)
- Saturday
8:30am Get Started
11:30am Meal
2:00pm – 2:30pm Wrap up

Responsibilities

Students

Expectations

Students will put priority on their grades over any team need. Grades are important. Students must complete schoolwork before participating in team work sessions and activities.

Read and understand all the rules of the competition. Understand our team's robot and competition strategy.

Ask for help! If you don't know what is going on or are unsure how to accomplish a task assigned to you, ask for help.

At the end of the day, students are required to help clean up. If a student needs to leave early they should clean up their own area and then ask an adult what else they should clean up before leaving. Students may not wander the school or Tech Park cafeteria without the permission of an adult.

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Team members are expected to put away cell phones and netbooks during work sessions. Students caught playing video games, randomly surfing the internet, or any other non-contributory actions will forfeit their earned hours for that night and their previous night.

All Team members must also follow the rules in the VAHS Handbook.

Respect

Team members are expected to show respect to everyone. Team members are there to have a good experience, and deserve to have that good experience. Not listening to adults on the team when they are trying to relay information or training is disrespectful. They are there to give knowledge, assistance, and training. They are volunteers, and are not being paid to be there helping you. Remember that, and acknowledge that when dealing with them.

Eligibility

Success is an important part of FIRST and the team. It is not restricted to the robot, game performance, or how many trophies the team is awarded. Team members are successful only when they succeed in the classroom, and then participate in team activities. All team members are expected to make schoolwork and individual academic performance a priority over any team event or activity.

Any student member of the team that is struggling with schoolwork can seek help. The team will have resources available to help students with schoolwork. You do not need to be ineligible or on probation to seek/receive help – just ask!

Advisor

The Advisor is there to oversee all aspects of the team, and as such, is a busy individual. They are the liaison between the team and the administrators of FIRST and the sponsors.

Mentors, Adult Team Members (Sponsors or otherwise):

Helping the students reach their full potential is the primary reason for participating in FIRST. We know that mentors have families, jobs, and other important commitments outside of the team. We ask that mentors properly inform us up front of how much time they think they will be able to contribute. Adult chaperones on team outings are not allowed to consume alcoholic beverages.

When dealing with the students, please remember that you are there to guide, **not to do**. Also remember that these students do not have your life experiences, and may not know all you do about a particular field. Take the time to get to know the students and their abilities/limitations. Respect them as well when dealing with them. We also expect adult members to follow all the guidelines stated in this handbook.

Leadership

Student

This is the Team Captain, Team Co-captain, and Subteam Leaders. These are the student leaders responsible for coordinating the efforts of the whole team and subteams. The primary responsibility of the Team Captain is to be the coordinator for the student body of the team. He or she shall be available for guidance and training. They shall exercise patience in dealing with team issues. They shall act as a liaison between the team and the Team Advisor.

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The leadership shall be receptive to ALL ideas and should consider them. Providers shall be informed as to why their idea is not being used instead of just being told “no”.

The Team Captain or Co-Captain is voted in by the team. Requirements for Team Captain are at least two years on a team with participation in at least two regional events. Requirements for the Co-Captain eligibility are at least one year on a team and participation in at least one regional event.

Team Leads are appointed by the Captain and Co-Captain, with final approval falling to the Team Advisor. These decisions will be based on capabilities in the team specialty, personal ability to lead, or several other factors.

Positional

This is in reference to some positional responsibilities. Team Leads, Safety Officer, and Rules & Procedures Officer are listed for now.

Team Leads- Team Leads are responsible for the progression of their individual subteams, and the coordination between the Team Captains and the subteams. They are responsible for meeting schedule, or keeping the captains apprised of difficulties being encountered with the schedule.

Safety Officer – Is responsible for insuring that the members follow safety rules, and to remind individuals who have forgotten. This includes making sure that the proper personal protective equipment is worn in the build room, or when performing tasks inside or outside of the build room. This individual will also be involved in the Safety Training of the team members.

Rules & Regulations – This individual is, or individuals are, responsible for keeping updates coming regarding the Competition manual for the year. Updates come at least weekly, which include changes to the rules of the competition. These changes can affect the design of the robot overall, or just a subsystem. The updates may have an effect on gameplay, strategy, or a myriad of things.

This position is not just a matter of making sure updates are printed and placed in the Rules Binder, but making sure that the changes are understood, and that all of the team is made aware of the changes, especially the Captains and Team Leads.

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Team Organization

During the construction and competition season the team is organized into a series of subteams with each subteam being lead by one or two student leaders. Below is a list of possible subteams, which may exist during the season.

Mechanical Drive train Design:

- Responsible for selecting a drive train design that matches the team's primary strategies. They are also responsible for the integration of all components of the robot, so they must communicate with the other sub-teams.
- Will design the drive train, and chassis in CAD, select and design wheels, and procure and build all drive train parts, then assemble the drive train.
- Should interact with the all sub-team to determine the placement of components.

Mechanical Mechanism Design:

- Responsible for designing any arm, gripper, manipulator, or other mechanism that will be used to play the game.
- Will design the mechanism(s) in CAD, select and procure parts, and build all mechanisms.
- Will be responsible for interfacing with the electrical and programming teams to communicate the needs for the robot mechanisms.

Electrical:

- Responsible for designing and laying out the electrical subsystem.
- Test components as needed to assure functional status.
- Will implement all sensor needs, and make sure that there is appropriate mechanical design to accommodate sensors and electrical components.

Programming:

- Responsible for designing a program that accomplishes the needs of all the functions of the robot.
- Responsible for determining best implementation of autonomous modes, and should communicate sensor needs with the electrical sub-team.

Business Unit:

- Designs for team apparel and buttons
- Host fun team and interteam activities
- Record all team meetings and events through photo and video
- Chairman's Award and Entrepreneurship Award submission (essays and presentation)
- Determine submissions/criteria for other awards: Woodie Flowers Award, Technical, etc. and help the team achieve them.
- Responsible for Web site updates (calendar, pictures, events...)
- Publicity and team promotion throughout the community

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Competitions

Expectations at Competitions

- Team members traveling with the team to competitions are expected to participate at all times with a positive manner while on the trip.
- Team members are expected to cheer and do whatever is necessary to help the team be successful.
- Team members are expected to wear their team jersey, un-modified, at all times when traveling with the team.
- Team members will be participate in intelligence gathering and strategy meetings
- Field teams (Driver, Navigator, Human Player) members will be selected before attending competitions. Students will need to try out for these positions. Teamwork, skills, knowledge of rules will be factors in choosing students for these positions.

****Note: The team is not responsible for lost or stolen items while traveling.****

Qualifications for Attending Competitions:

- Keep up grades and attendance at school (no exceptions). This is a C average, with no F's.
- Exhibit appropriate behavior at all times. This includes behavior within the classroom and school as well as at competitions or events.
- Complete and return all paperwork and make all payments (if any) in a timely manner.
- Work a minimum of 72 **quality** hours to attend the Home competition, and 122 **quality** hours to attend the Away competition. Keep a log of your pre-competition activities. In order to count as "quality hours", it must be approved (each entry) by an approved mentor.
- Attend a minimum of 10 team meetings. If you cannot attend a team meeting you need to speak with the Team Advisor **prior** to the meeting!
- Participate with a positive attitude.
- Help in 20 shop clean-ups or otherwise equivalent work (must be agreed upon by mentors) and 3 dinner clean-ups.
- Would like your family to provide at least one team meal during the season. Feel free to work with other families and partner in putting on meals. Speak with the Team Advisor if you have any questions, issues, or need dinner ideas.

****Please note that the word quality above in bold. Simply showing up, signing in, hanging out, and leaving does not constitute "quality" and hours will be dropped from your total hour count.****

Team Member Conduct:

All members of the team are expected to exhibit exemplary behavior and act as role models for their peers and other team members. Team members will be in the public eye both on and off the playing field. Knowing this, you must conduct yourself accordingly. The actions of a team member are a direct reflection of themselves, their team, their school or corporate sponsor, and family. School rules do still apply. This means **NO** "PDA". Significant others can be distracting to the team, please respect the efforts we are putting forward.

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As a team member you are expected to wear team jerseys and colors with respect and pride in what it represents. “Good Sportsmanship” consists of respect for others and cooperation with teachers, coaches, teammates, and officials.

Depending on the severity and seriousness of a behavior issue the team member may be dropped from the team, put on probation, or given a verbal warning. In all cases the situation is expected to be rectified in a timely manner to the satisfaction of the school administration and coaches.

The Team asks that you treat everyone with respect. ***Students, please remember that all of the adults on the team are volunteers and are not receiving any payment to come and be part of the team. Please respect and thank them for this commitment!!***

Trophies and Awards

There are a number of trophies and awards that teams can qualify for. Here are a few that we may be eligible for:

1. Chairman’s Award – This award honors the team that, in the judges’ opinion, best represents the spirit of *FIRST*. This is considered the most prestigious award in the competition.
2. “Coopertition” Award – Celebrates the team that receives the most “Coopertition” points during the competition.
3. Creativity Award – Celebrates creative design, use of component, or unique strategy of play.
4. Engineering Excellence Award -
5. Engineering Inspiration Award
6. Entrepreneurship Award
7. Excellence in Design
8. FIRST Dean’s List

These are just some of the awards available to the team. Some we need to submit for, others are awarded along the way. It is our responsibility to apply for those we want.

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2010-2012 VAHS F.I.R.S.T. Robotics Team Student Team Contract

Full Name: _____

Participation in the F.I.R.S.T. Robotics Team will require a large commitment on your part. To be a part of the team you must:

- Keep up grades and attendance at school (no exceptions)
- Exhibit appropriate behavior at all times. This includes behavior within the classroom and school as well as at competitions or events.
- Complete and return all paperwork and make all payments (if any) in a timely manner.
- Participate with a positive attitude.
- Work a minimum of 72 **quality** hours to attend the Home competition, and 122 **quality** hours to attend the Away competition
- Attend a minimum of 10 team meetings. If you cannot attend a team meeting you need to speak with The Advisor **prior** to the meeting!
- Help in 20 shop clean-ups or otherwise equivalent work (must be agreed upon by mentors) and 3 dinner clean-ups.
- Follow **all** guidelines set forth in this handbook

If you or your family is unable to meet any of these requirements please speak with Don Adams or The Advisor.

I have read the VAHS F.I.R.S.T. Robotics Team Handbook. I understand that if I wish to attend any of the competitions, I will be required to earn that privilege by participation in the activities mentioned above.

I have reviewed this handbook with my child and understand the commitment that will be required. I agree to have my child participate on the VAHS F.I.R.S.T. Robotics Team.

By signing this contract parents are agreeing to retrieve their child should the need arise.

Member Signature

Parent/Guardian Signature

Date _____

Date _____

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2010-2012 VAHS F.I.R.S.T. Robotics Team Mentor / Parent Team Contract

Full Name: _____

Participation in the F.I.R.S.T. Robotics Team will require a large commitment on your part. To be a part of the team you must:

- Exhibit appropriate behavior at all times. This includes behavior within the school as well as at competitions or events.
- Complete and return all paperwork and make all payments in a timely manner.
- Participate with a positive attitude.
- No Alcoholic beverages will be consumed before or during team work sessions and events.
- Follow **all** guidelines set forth in this handbook
- Mentors are there to guide the student through the process of building the robot that the students have conceived and designed.

Failure to follow these guidelines will result in the Steering committee intervention and possible removal from the team.

I have read the VAHS F.I.R.S.T. Robotics Team Handbook. I understand failure to follow these guidelines will result in the Steering committee intervention and possible removal from the team.

Member Signature _____

Date _____

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